

Mouse Anti-Human Complement Component 5 Monoclonal Antibody

Cat. No. CAB11483MH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Mouse monoclonal antibody to human complement component 5.
Species	Human
Source	Mouse
Antigen Description	C5a is a protein fragment released from complement component C5. This 74 amino acid peptide in humans is generated by the cleavage of C5a convertase on the C5 α-chain during the classical, alternative, and lectin pathways of complement activation. The structure of C5a includes a core region consisting of four, anti-parallel α-helices held together by three disulfide linkages and a structured C-terminal tail, and C5a is rapidly metabolised by carboxypeptidase B to a 73 amino acid low activity form, C5a des-Arg. C5a is an extremely potent proinflammatory mediator, as well as a potent chemotactic factor for neutrophils and other leukocytes. It causes histamine release, increases in vascular permeability, induces several cytokines production from leukocytes, enhances neutrophil-endothelial cell adhesion, and augments the humoral and cell-mediated immune response. C5a exerts actions by binding to G-protein-coupled receptor (C5aR/CD88) on the plasma membrane of target cells. Accordingly, the anaphylatoxin C5a is implicated in a variety of diseases such as rheumatoid arthritis, systemic lupus erythematosus, reperfusion injury, Alzheimers disease, and sepsis.
Specificity	Human Complement C5a. No cross-reactivity in ELISA with Human Carbonic

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	Anhydrase II / CA2, Human alpha-2-macroglobulin / A2M, E.coli cell lysate.
Immunogen	Recombinant Human Complement C5a Protein
Isotype	Mouse IgG2b
Clone	6F 2E2
Purification	Protein A affinity chromatography
Applications	ELISA
Dilution	Direct ELISA: This antibody can be used at 1 - 2 µg/mL with the appropriate secondary reagents to detect C5a-his. The detection limit for C5a-his is approximately 0.078 ng/well.
Preparation	This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified, human cell-derived, recombinant Human Complement C5a. The IgG fraction of the cell culture supernatant was purified by Protein A affinity chromatography.
Format	0.2 µm filtered solution in PBS with 5% trehalose
Storage	This antibody can be stored at 2-8 °C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20 °C to -70 °C. Preservative-Free. Sodium azide is recommended to avoid contamination (final concentration 0.05%-0.1%). It is toxic to cells and should be disposed of properly. Avoid repeated freeze-thaw cycles.

GENE INFORMATION

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Gene Name	C5 complement component 5 [Homo sapiens]
Official Symbol	C5
Synonyms	C5; complement component 5; complement C5; CPAMD4; anaphylatoxin C5a analog; C3 and PZP-like alpha-2-macroglobulin domain-containing protein 4; FLJ17816; FLJ17822; MGC142298;
Gene ID	727
mRNA Refseq	NM_001735
Protein Refseq	NP_001726
MIM	120900
UniProt ID	P01031
Chromosome Location	9q33-q34
Pathway	Activation of C3 and C5, organism-specific biosystem; Class A/1 (Rhodopsin-like receptors), organism-specific biosystem; Complement Activation, Classical Pathway, organism-specific biosystem; Complement and coagulation cascades, organism-specific biosystem; Complement and coagulation cascades, conserved biosystem; Complement cascade, organism-specific biosystem; G alpha (i) signalling events, organism-specific biosystem;
Function	C5a anaphylatoxin chemotactic receptor binding; chemokine activity; endopeptidase inhibitor activity; receptor binding;

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